



# Trimble Access Track Gauge Survey

SOFTWARE FOR SIMPLE TRACK SURVEY WITH TRACK MEASUREMENT BAR

Track Gauge Survey is field software integrated with Trimble Access for optimized determination of track position with gauge and cant using a track measurement bar.

## SYSTEM COMPONENTS

### Trimble GEDO Office Base

Software for data preparation, data editing as well as exchange with external systems. Data can be transferred digitally, i.e. from the standardized LandXML format. The alignment is displayed in the curvature alignment or in a 2D plan view together with reference points.

### Trimble Access (General Survey)

Trimble Access with its basic module General Survey is a powerful and easy-to-use field software with graphical user interface, interactive map display and extensive functions for general surveying tasks. Trimble total stations of the Trimble S, SPS, SX and GNSS receivers are optimally supported.

### Trimble Access Module Track Gauge Survey

Trimble Access Track Gauge Survey is a software module integrated in Trimble Access for measuring track parameters. After the total station setup with control points, the coordinates of the track axis, left and right rail, gauge and cant can be determined using a track measurement bar. The total station

measurement to the prisms of the movable or fixed track measuring bar can take place in a constant sequence, with fixed side first, with movable side first, or in alternating measurement sequence. Export formats are available for the measured track geometry. Further data evaluation can be performed in Trimble GEDO Office. For automatic track monitoring purposes, there is a direct interface to the Rail module of the Trimble 4D Control software.

### Trimble GEDO Office Module Rec

Software for processing and analyzing measurements of the Trimble Access Track Gauge Survey module, as well as exchange with external systems. In addition, the calculation of deviations from a design track position can be performed.

### Trimble GEDO Office Module Quality

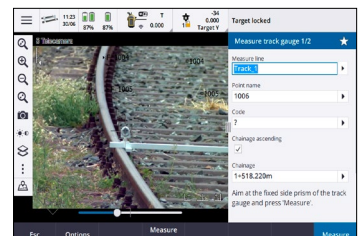
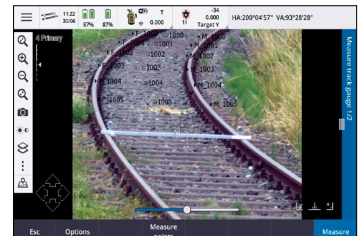
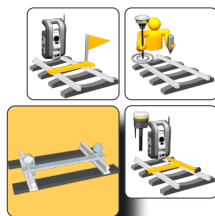
Software for generating reports to ensure compliance with track safety and quality parameters.

### Trimble GEDO Office Module Monitoring

Software for comparison of measurements from different epochs for track monitoring purposes.

## Key Benefits

- ▶ Module for Trimble Access with support for motorized Trimble total stations
- ▶ Optimized track as-built survey with mechanical track measurement bar
- ▶ Time saving due to predefined measurement sequence with automatic rotation to the respective prism
- ▶ Precise, lightweight track measurement bar with one fixed and one movable prism holder for gauge measurement
- ▶ Calculation of track point coordinates, gauge and cant after measurement of both prisms
- ▶ Export coordinates of left rail, right rail and track center in combination with cant (superelevation) and track gauge
- ▶ Process, analyze and compare measurements, and generate reports and outputs in Trimble GEDO Office
- ▶ Direct interface to the Trimble 4D Control Rail module software for track monitoring
- ▶ For all Trimble Access control units





# TRACK SURVEY WITH TRACK MEASUREMENT BAR

## MEASUREMENT OF RAILWAY TRACK

### TRACK AS-BUILT

- Measurement ..... • Presetting of the cant base, reference gauge, track measurement bar configuration, prism types, as well as the measurement order
- Total station setup as resection or on known point
    - Measurement of the prisms by predefined measuring sequence with automatic rotation to the respective prism
- Display..... • Graphical overview map of measured and calculated track points
  - Display of the calculated chainage, cant (superelevation) and track gauge
  - Video display for total station with Vision technology

### RESULTS

- ..... Logging into ASCII file  
 ..... Job file for further processing in Trimble GEDO Office module Rec <sup>(1)</sup>  
 ..... Track file for further processing in Trimble 4D Control module Rail <sup>(1)</sup>

## SYSTEM REQUIREMENTS

### Instruments<sup>(2)</sup>

Trimble S-Series Total Stations (i.e. S7, S9)  
 Trimble Scanning Total Stations (SX10, SX12)

### Controller

Trimble TSC7, T7, T100 control units (for Windows® OS)  
 Trimble TSC5, TDC600 and TCU5 control units (for Android OS)

### Trimble Access Version

2021.00 or higher (for Windows OS)  
 2023.00 or higher (for Android OS)

### Track Measurement Bar

Two prism mounting positions above inner rail edge

- ▶ Fixed prism mounting position above rail inner edge and fixed prism mounting position with distance to nominal track gauge
- ▶ Fixed prism mounting position above rail inner edge and movable prism mounting position on opposite side for measuring the track gauge, available for all track gauges (i.e. 1000 mm, 1067 mm, 1435 mm, 1520 mm, 1600 mm, 1668 mm, 1676 mm)

## TYPICAL APPLICATIONS

- ▶ Software for simple track surveying tasks
- ▶ Basics for calculating an improved track design
- ▶ Control measurement
- ▶ Preservation of evidence
- ▶ Track monitoring measurements

<sup>(1)</sup> Requires additional licenses  
<sup>(2)</sup> Same instrument support as in Trimble Access

Specifications are subject to change without notice.



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